

Claims

1. Sensor protection circuit for at least one sensor (6), in particular in a motor vehicle electric circuit, having at least one supply line (3, 4) for supplying current to the sensor (6),  
characterized by  
a current measuring unit (R1, R3, T2, T3, R4) for detecting the electrical current flowing through the supply line (3) in order to prevent damage to the sensor (6) through excess voltage,  
with the current measuring unit (R1, R3, T2, T3, T4) being connected to a current limiting device (T1) for limiting the current and/or to circuit element (T1) for disconnecting the supply line (3).  
  
2. Sensor protection circuit (1) according to Claim 1 characterized in that the supply line (3) monitored by the current measuring unit (R1, R3, T2, T3, R4) is a ground line for the sensor (6).  
  
3. Sensor protection circuit (1) according to Claim 1 and/or Claim 2, characterized in that the circuit element (T1) is connected to a control input (9) for disconnecting the supply line (3).  
  
4. Sensor protection circuit (1) according to at least one of the preceding Claims,  
characterized by a signal line (7) for recording a sensor signal from the sensor (6).

5. Sensor protection circuit (1) according to at least one of the preceding Claims,  
characterized in that  
a voltage line (4) and a ground line (3) are provided for  
5 supplying current to the sensor (6).

6. Sensor protection circuit (1) according to at least one of the preceding Claims,  
characterized in that  
10 the voltage line (4), the ground line (3) and/or the signal line (7) is connected to at least one Zener diode (D3, D4) and/or at least one capacitor (C2, C3, C4) in order to prevent excess voltages.

15 7. Sensor protection circuit (1) according to Claim 6 characterized in that  
the Zener diode (D3, D4) and/or the capacitor (C2, C3, C4) is switched between the voltage line (4) and/or the signal line (7) on the one hand, and the ground line (3) on the other hand.  
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8. Sensor protection circuit (1) according to Claim 6 and/or Claim 7  
characterized in that  
25 the sensor (6) comprises at least one Zener diode (D1, D2) as a short circuit protection, with the Zener diode (D3, D4) of the sensor protection circuit (1) having a lower breakdown voltage than the Zener diode (D1, D2) of the sensor (6).